RU-1400 REFRACTION UNIT

User's Manual

LUXVISION

Notification

Dear Users,
Thank you for your purchase of RU 1400 Refraction Unit. Please take time to read our user's manual carefully before use.
This guarantees you to make full use of this unit and prolongs the operation life of this unit.

Precautions

If you have detected abnormal heat, smoke, noise or smell, immediately stop using the product.
In the event of an abnormality, turn off the power and disconnect the power plug from the power socket. Continuing to use the product may result in electric shock or fire.

Observe the instructions given below regarding the power cable:

- Be sure to use the supplied or specified power cable.
- Do not modify, forcibly bend, kink or pull the power cable.
- When disconnecting the power cable from the AC outlet, be sure to hold the cable by the plug.
  Pulling the cable may cause wire breakage or shot circuit, resulting in fire or electric shock.
- Do not connect or disconnect the plug of the power cable to/from the AC outlet using wet hands.
  Doing so may result in electric shock.
- Do not touch the product with wet hands while the power cable is connected to the AC outlet.
  Doing so may result in electric shock.
- If the product will not be used for a long period, disconnect the power cable from the power source. Leaving the cable connected to the power socket for a prolonged period will consume electricity and may result in heating.

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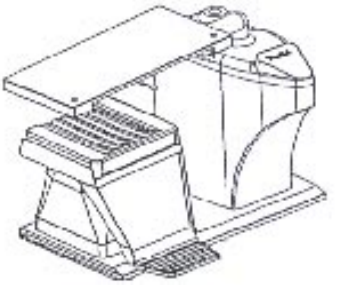
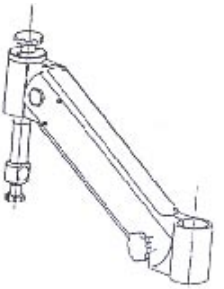
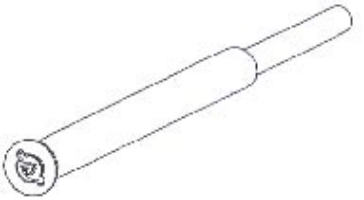
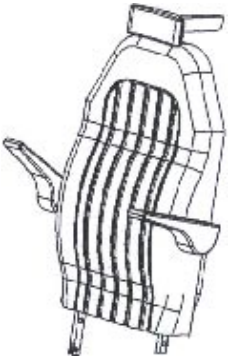
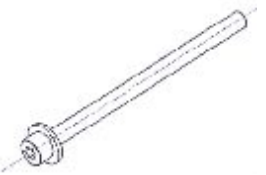
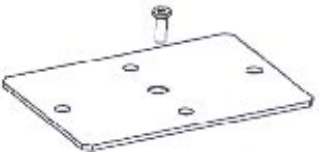
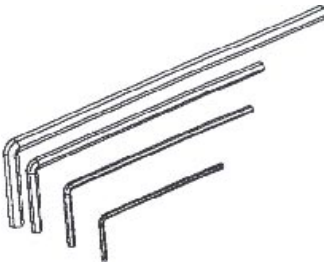
1. Package List

ID	Name	Qty.	Figure
1	MainPart (including Base, Liftpart and Operating Board).	1	
2	Rocker	1	
3	ShortRod	1	
4	LongRod	1	
5	Lamp	1	

ID	Name	Qty.	Figure
6	Back	1	
7	Cannula	1	
8	Hex Socket Cap Screw ISO 4762-M8X120	1	
9	Projector Flat and Countersunk Flat Head Screw	1	
10	Power Cable		
11	Communication Cable		
12	Fuse 5A		

ID	Name	Qty.	Figure
13	Hex Spanners	4	
14	Wrench	1	
15	Manual	1	
16	Acceptance Certificate	1	

2. Name of Parts

Refer to figure 16 and Figure 1 to understand the instrument's components.

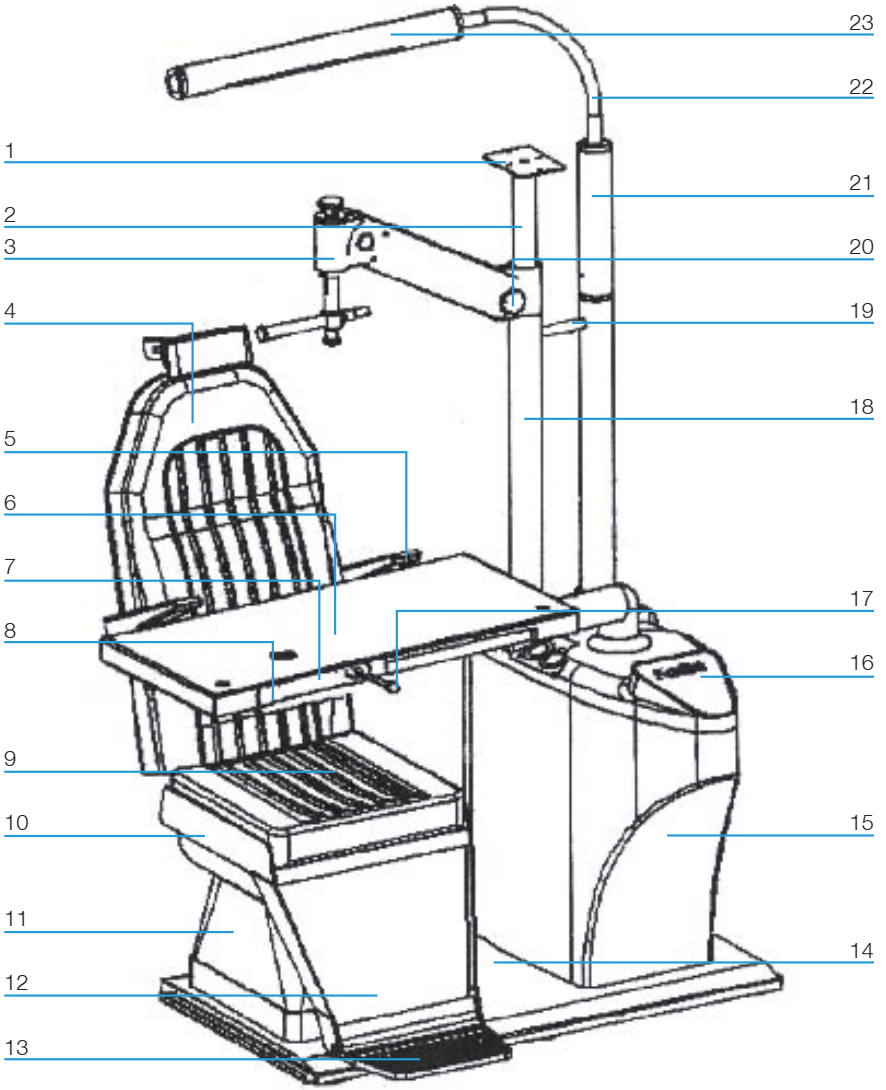


Fig.1 Components diagram (1)

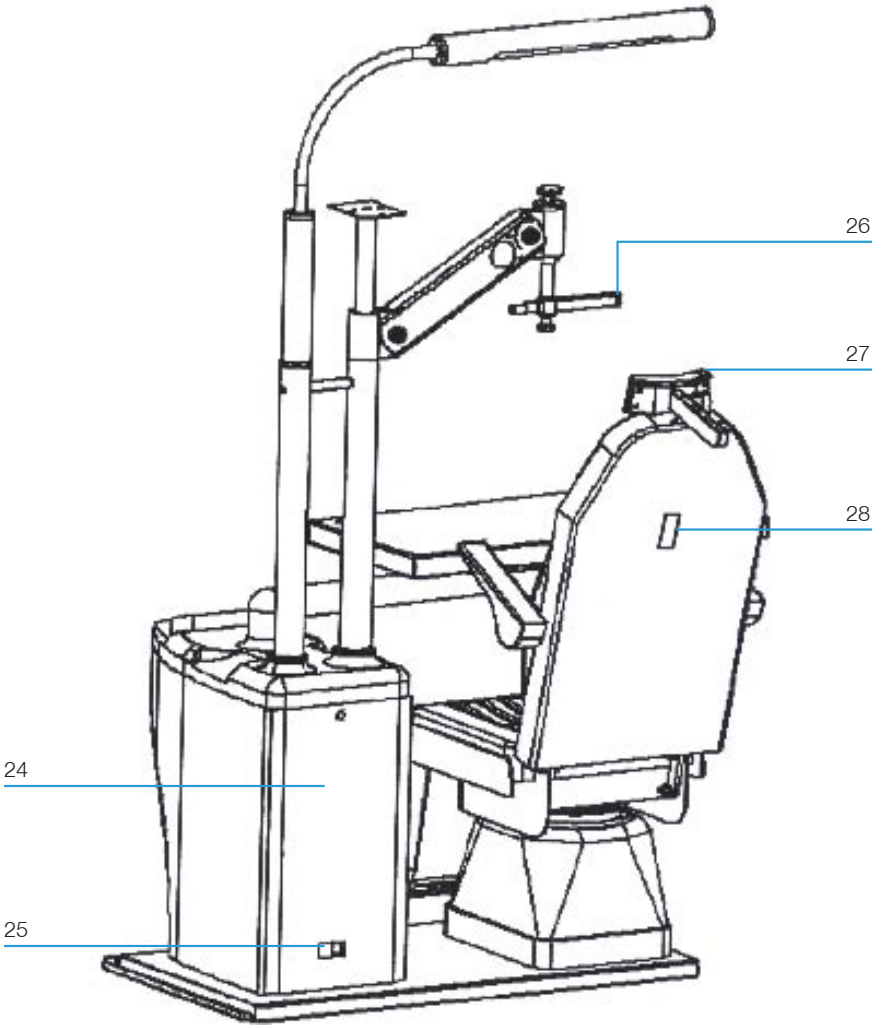


Fig.2 Components diagram (2)

1. Projector Flat
2. Rocker Installing Rod
3. Rocker
4. Back
5. Armrest
6. Operating Board
7. DC Output Voltage Adjustment
8. Chiar down/up botton
9. Cushion
10. Chair Frame
11. Chair Cover
12. Baffle
13. Footboard
14. Base
15. Mainframe
16. Panel
17. Handle
18. ShortRod
19. Cannula
20. Rocker locker
21. LongRod
22. Connector Pipe
23. Lamp
24. Screws
25. Power Switch
26. HorizontalRod on Rocker
27. Headrest
28. Lifting Switch

3. Assembly Process

1. First at all, you should place the MainPart on a flat.

2. Unscrew the two screws on the back of the MainPart, so you can open it's back (fig.3)

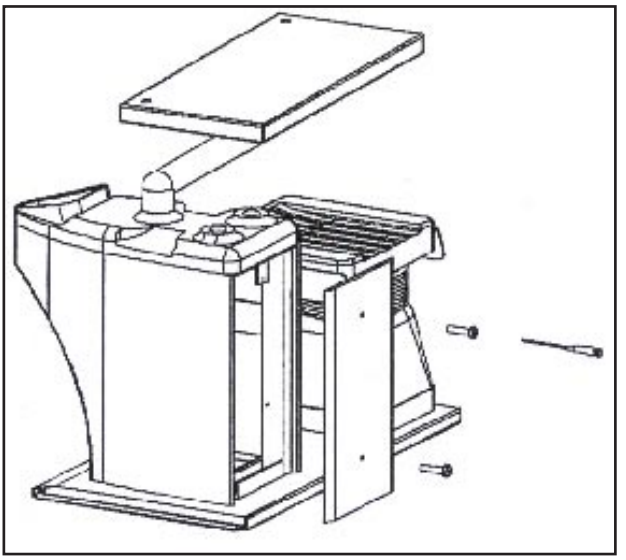


Fig.3 Unfix the back

3. Unscrew the screw and washer on the end of the ShortRod (fig.4)

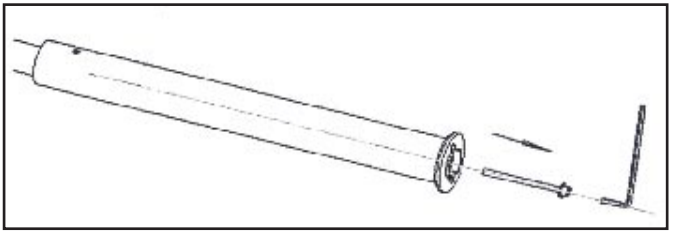


Fig.4 Unscrew screw and washer

4. Fit the ShortRod on the MainPart according to the place showed in figure 5. In this step, do not make the screw completely fixed, so that you can adjust the position of the ShortRod.

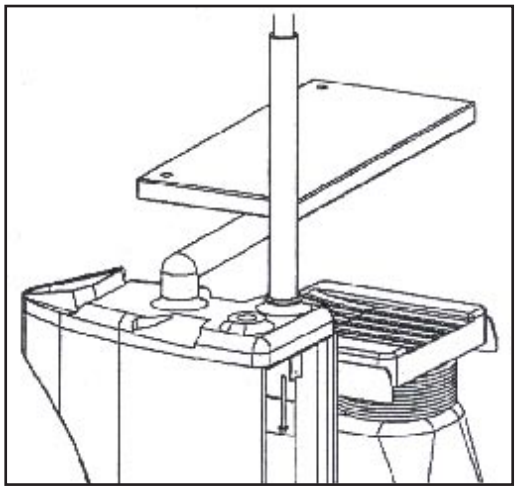


Fig. 5 Assembly ShortRod

5. Before mounting the LongRod on the MainPart with the same way as step 3 ~ 4, you should unscrew the screw and washer at the end of the LongRod (see fig.6), and the four screws on the other end of it (fig.7). See Figure 6 ~ 8.

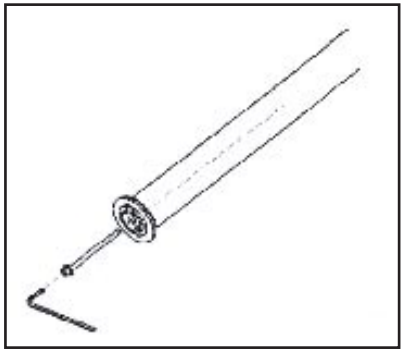


Fig 6 Unscrew the screw and washer on LongRod

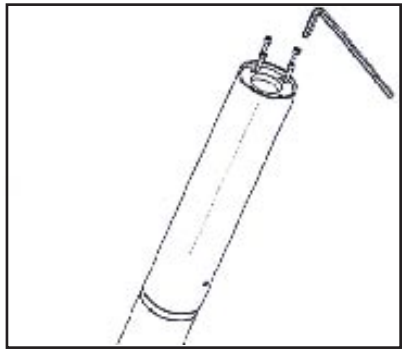


Fig.7 Unscrew the four screws

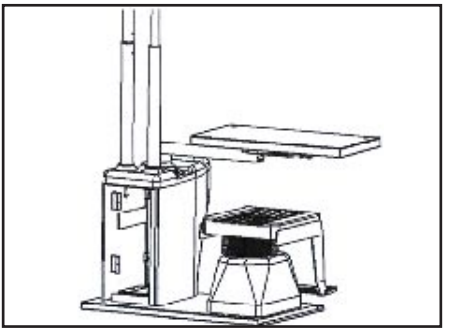


Fig. 8 Assembly LongRod

6. Place the Cannula between the Rods, and adjust the Rods' position to keep the three holes in line. Insert the Hex Socket Cap Screw ISO 4762 - M8x120 into the ShortRod. Cannula and the LongRod. Before fixing the screw, you need to adjust the ShortRod and the LongRod, keep them vertical to the ground. (Fig 9)

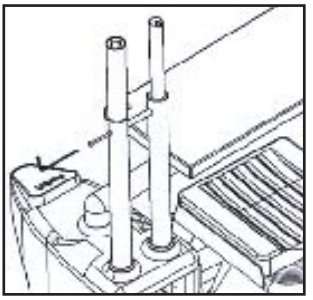


Fig. 9 Assembly the Cannula

7. Pull out the wires from the Lamp, connect each wire to the wire with the same color in the LongRod. (Fig.10)

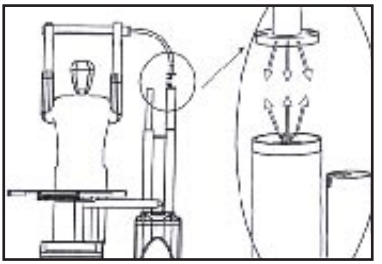


Fig. 10 Connect Wires

8. In order to keep the lamp horizontal, one person should buttress the lamp in this step. Adjust the lamp to the right position, and fix the four screws unscrewed from the LongRod to the corresponding position and make them tightened, (fig.7). See the figure 11.

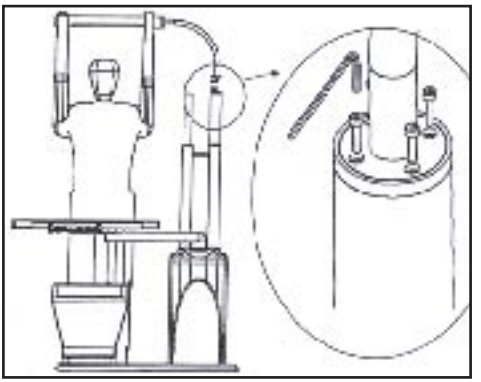


Fig.11 Assembly the Lamp

9. After the ShortRod, LongRod and the Lamp has been set up, you should adjust their position to keep the ShortRod and LongRod vertical to the ground. At last, tighten each screws (fig.5, 8 ,9).

10. Unscrew the three bolts and nuts on the chair of the MainPart. see figure 12.

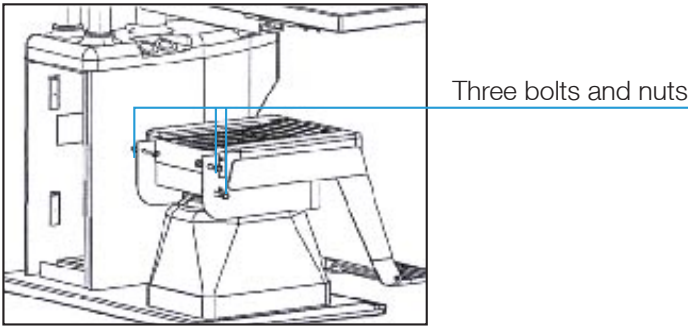


Fig.12 Unscrew three bolts and nuts

11. Align the three holes on the Back and their corresponding holes on the chair, fix the Back to MainPart reliably with the three bolds and nuts. See figure 13.

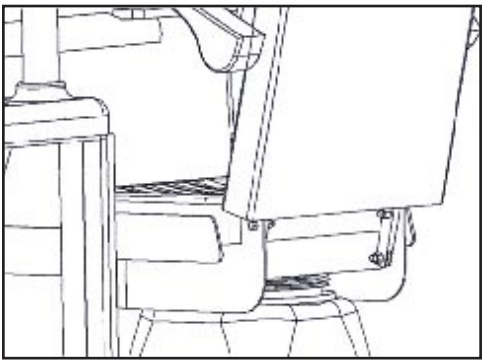


Fig.13 Fix the Back

12. Hang the Rocker onto the ShortRod, make sure that the Rocker can run softly and comfortably. See figure 14.

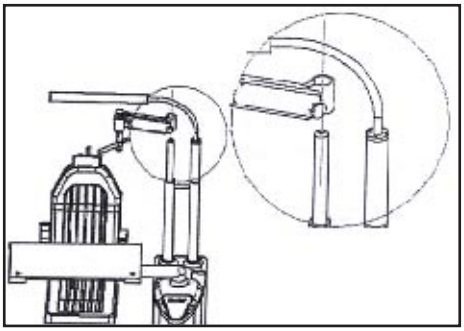


Fig.14 Assembly the Rocker

13. To install the Projector Flat with the Countersunk Flat Head Screw. Keep the length of the power plug wire 260mm,see figure 15. On the back of Flat, there was fixed a universal, you need to test it's swing motion.

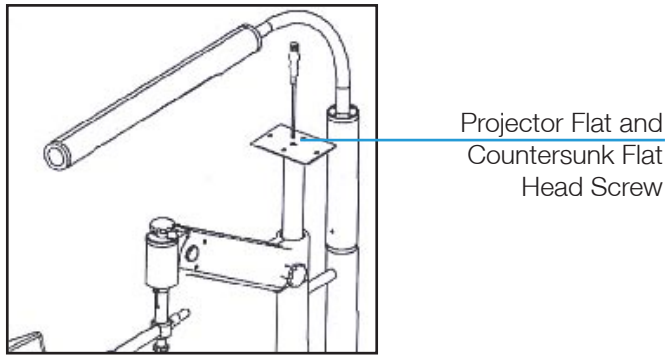


Fig. 15 Assembly the Projector Flat

14. Connect the Projector wire and lighting wire respectively according to the connection diagram (see figure 16).

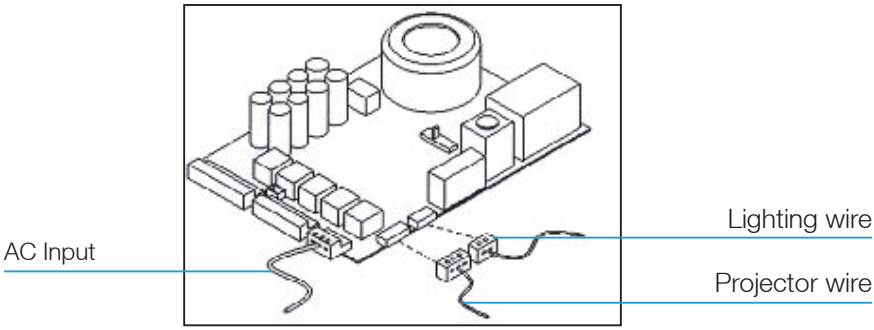


Fig.13 Connection diagram

15. Power on to test the wire connection. If connection is correct, fix the back of MainPart (fig.17); make sure that the two screws are not screwed so tight.

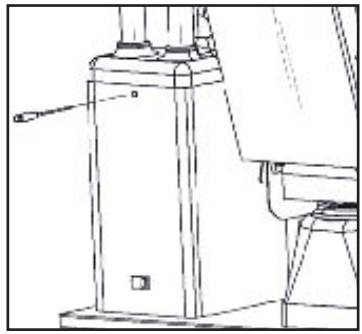


Fig.17 Fix the back of the MainPart

Other Accessories Assembly

16. To install the Projector onto the Projector Flat with the screws, and plug in.

17. Hang up the Eyesight Detector onto the HorizontalRod of the Rocker, tighten its locking knob. Adjust the position of the detector via the handle on the Rocker, and then adjust it's horizontality via the bubble cell on it.

18. Loose the handle of Rocker, Eyesight Detector will rise slowly. If not, you should adjust the strain of the controlling spring,see fig.18, the strain enhances during a clock-wise rotation, vice versa.

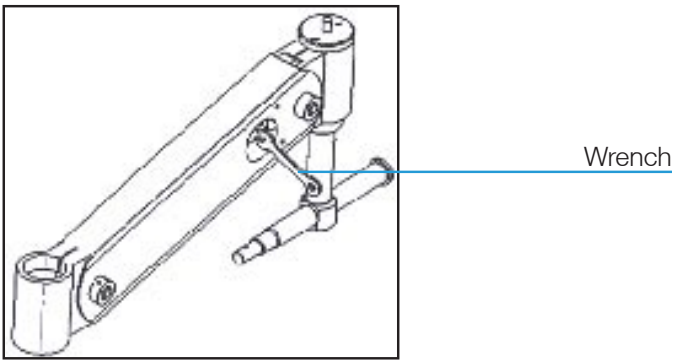


Fig.18 Adjust spring strain

19. Set up the optometry facilities on the operating Board, connect its plugs into the outlet under the operating Board.

20. You can connect the wires for the two DC outputs on operating board. The two DC outputs can be adjusted to 3V, 6V, 9V, 12V or 24V. You can adjust on the mainboard, default is 12V.

4. Default Circuit Settings and Adjustment

1. The default setting of local voltage is 220V. When firstly installed, you should check that the transformer should be in accordance the local supply power (220V or 110V), see No.1 in Fig.19.

2. The default status of the computer power supply is always standby when power on. If you want to control the power by the button on controlling panel (see No. 3

in Fig 20), please take off the circuit ring (see No.2 in Fig 19)

3. About the two DC output on the platform. When the platform rotates outside 20 degrees, the power shut off. When the platform rotates back inside 20 degrees the power continues. If you pull out the plug on the rnainboard, the DV output is always standby in spite of platform rotating.

4. The flow bridge close to the circuit is left direct current. The flow bridge far form the circuit is right direct current.

5. The entry of the normal power made the chair works.

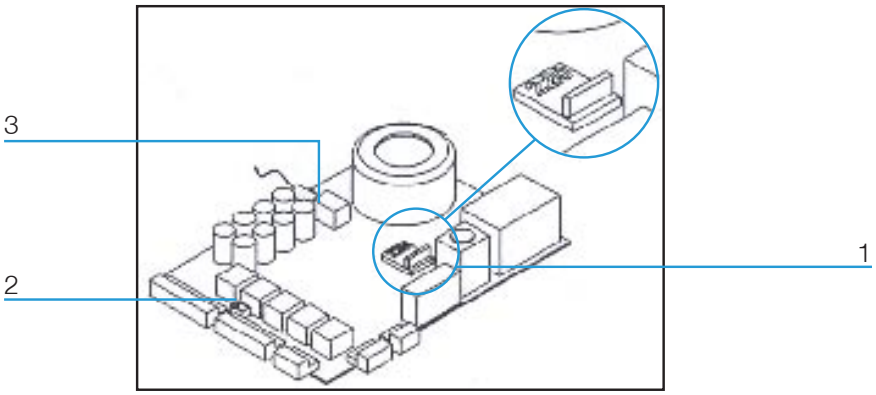


Fig.19 Mainboard Chart

5. Operation

1. Power on the facility, and press the [POWER] button on the Panel (No. 16 in fig. 1), the facility will stand by.

2. Press down the handle (No. 17 in fig. 1) on the Operating Board (No. 6 in fig. 1), you can move the Board to the left or right. When the Board moves to left, the DC output on left (default is 12V) power on, and the output on right is shut off, vice versa.

3. Press the height-adjust buttons ([▲][▼], the two buttons are located on the panel or on the front plane of the Board (No. 8 in fig. 1)), you can adjust the height of the chair. You can also use the switch on the back of the chair to do the same operation.

4. When the examination has been finished, you can move the Board to its origin,

and then rotate the Board 90-degree.

5. When you have to do some eyesight examinations, you can move the Eyesight Detector to the front of the patient, pull down the Rocker (No. 3 in fig. 1) to a suitable position, and lock the Rocker with it's locker (No. 20 in fig. 1). If there is needed to adjust the height of the chair, do it as step 3; you should refer to a manual of the Eyesight Detector if you do not know how to operate it.

6. After the eyesight examination, you must loose the handle of the Rocker, move the Rocker to its onginal place, and lock it.

7. Here is a function list of the buttons on the panel (see Fig 20).

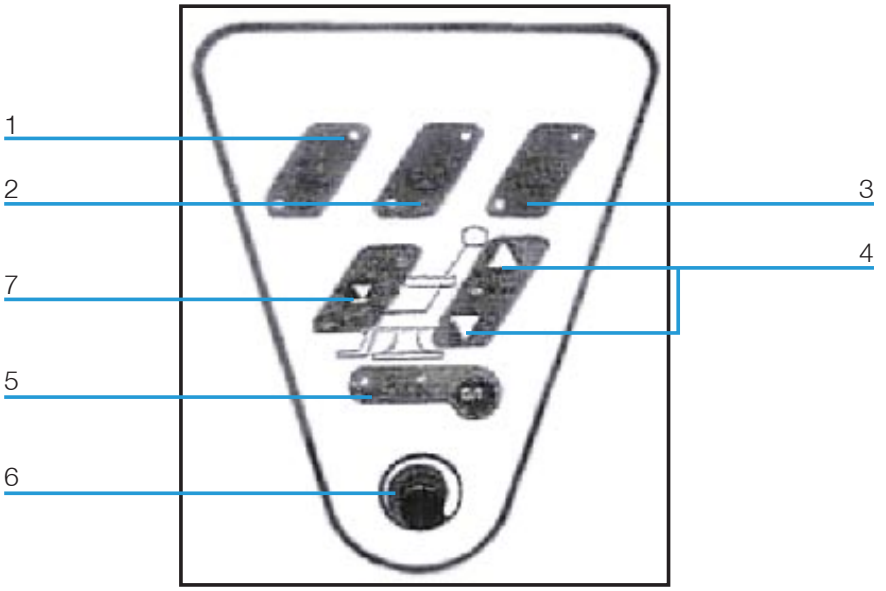


Fig 20 Panel

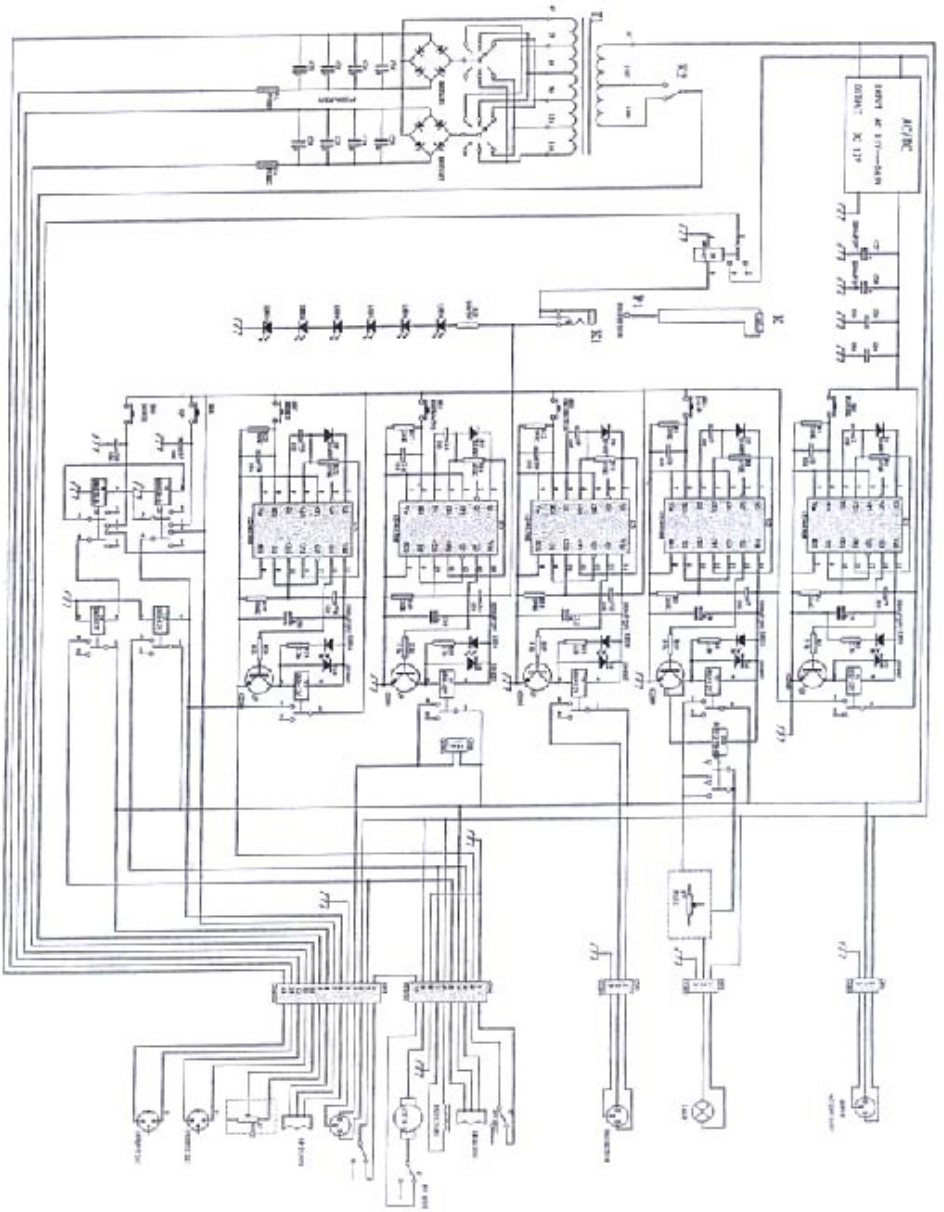
1. Lamp ON/OFF
2. Projector ON/OFF
3. Computer Outlet ON/OFF
4. Chair down/up buttons
5. Power ON/OFF
6. Lamp BrightnessAdjustment
7. Chair Restoration button

6. Possible Failure and Repair

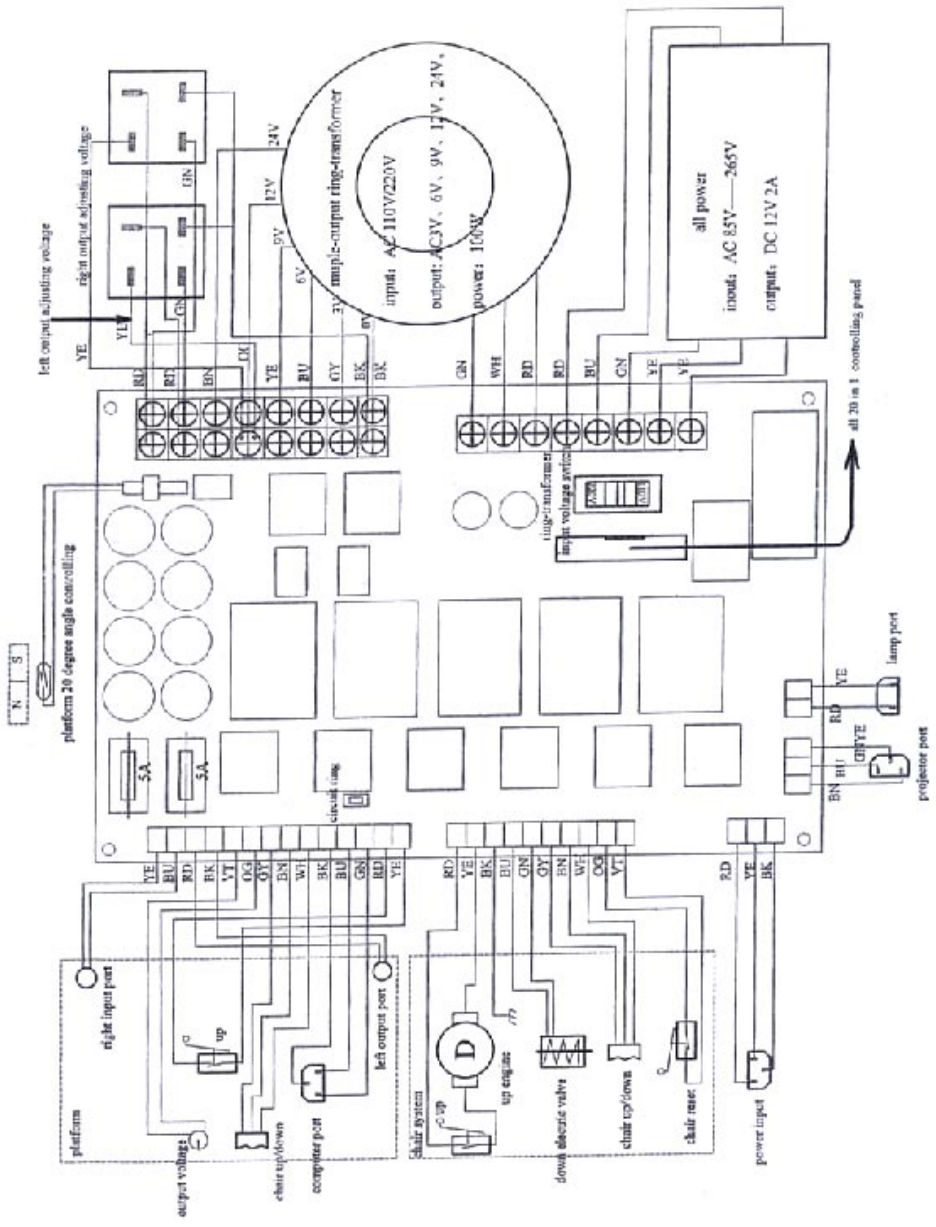
Here are some frequent failures or something happened possibly when you operate this combined table.
You can examine the facility or repair it according to the list.

	Failures	Possible reasons and repair suggestion
1	The indicator light has no light when power on	Checking the fuse. Checking the status of the socket.
2	The indicator light has light but it doesn't work yet.	Checking if the plug of the control panel connect right.
3	It doesn't work when started while the power and the control panel is on.	Checking if the control panel keeps perfect, or if the voltage is be up to the standard.
4	The power of the projector isn't on.	Checking if the line of the projector is well connected, or if the whole line has short circuit.
5	The two DC supply power on the board isn't prepared.	Checking if the line is well connected, or if the plug is loose.
6	The switch of the controlling chair under the board shows no power.	Checking if the switch keeps perfect, or if the line is connected in the right way.
7	The chair can rise but can't go down.	Checking if the journey switch under the table is normal.
8	The chair goes down automatically.	Adjusting the screw on the electromagnetism.
9	The head lamp has no light.	Checking if the lamp is damaged, or if the line is kept well.
10	When going up or down, there is a big noise with the engine.	a) It shows that some place is leaked and the unilateral plug needs to be changed. Please contact with the factory or the maintenance place to change. b) It has low temperature in winter, the density of the oil is high, so it might happened, it will be OK in ten minutes or so after it is started.
11	It doesn't work after checking the above questions.	Contact with the factory or the maintenance place, let the professional check the instrument or replace the part.

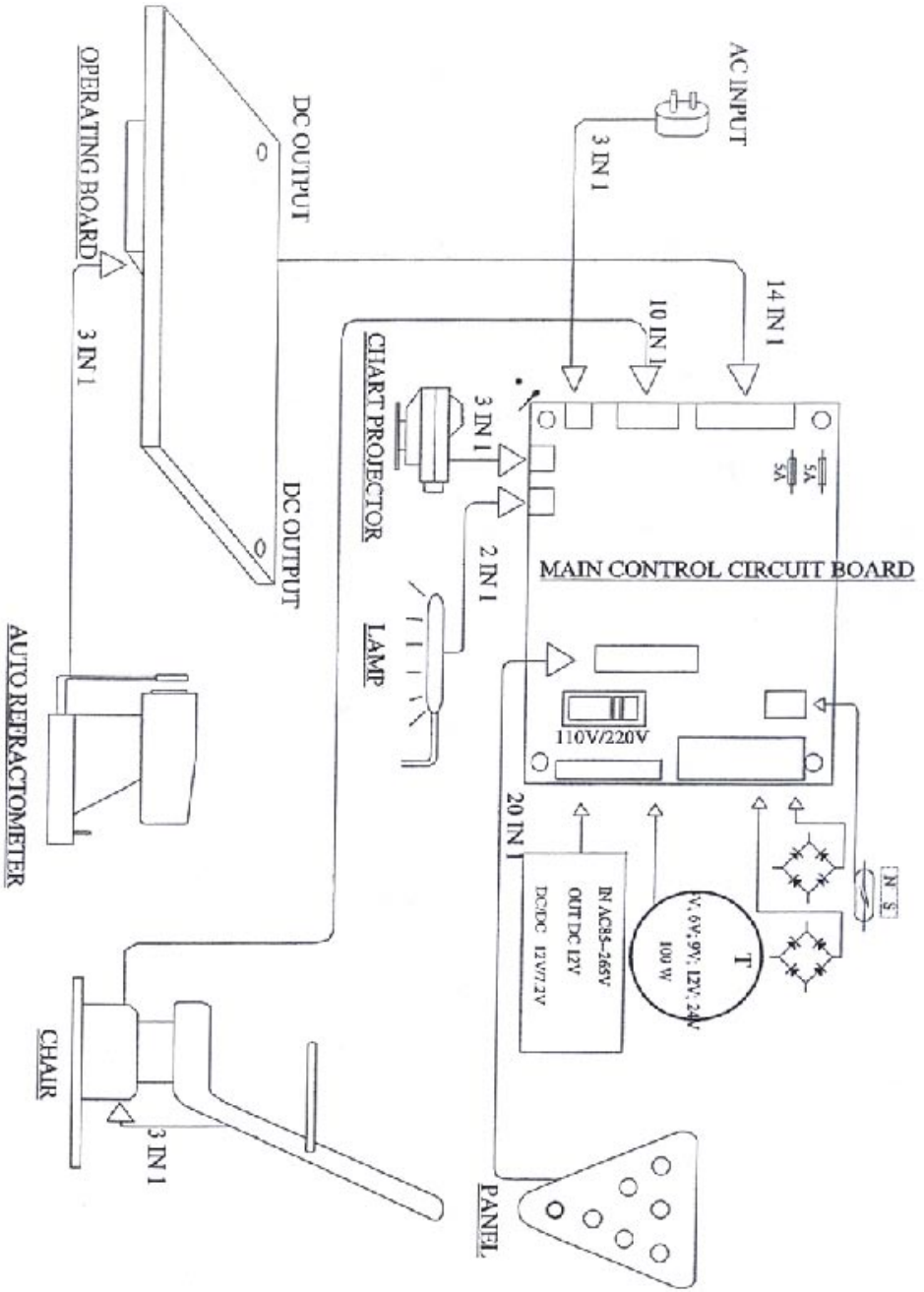
7. Wiring Diagram



The electric principle map



The electric system map

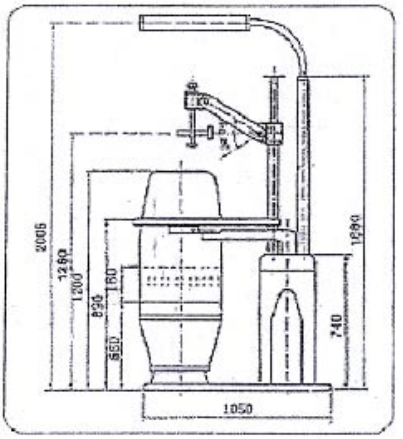


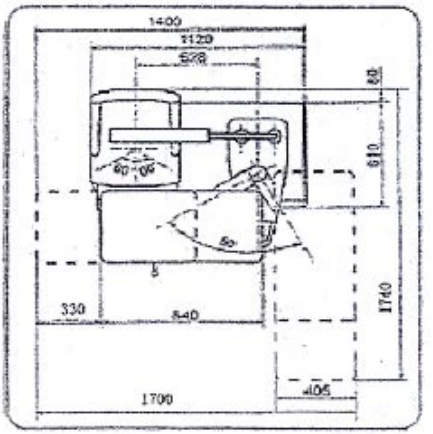
The line sketch map

8. Specifications

Mechanical Parameters	
Angle of rotation for swing arm	±30
Table size(mm)	840 x 405
Angle of rotation for table	90°
Table rnovement	0 ~ 330mm
Angle of rotation for chair	60
Lifting height for chair	0-180mm
Loading for chair	150Kg
Lifting height for pillow	0 ~ 70 mm
Backrest obliquity	90° ~ 135° to 900° ~ 140°
Table and Case using complex material	
Color	ivory and sapphire blue
Electrical Parameters	
Input Voltage	110V/220V AC 50Hz ~ 60Hz
Engine power	140W 220V AC
Light Luminaire	15W 110V/220VAV
Fuse	5A 250V AC
Power without load	1W
PressureTest	2KV
Working mode	S1

Main Wire	10A 250V
Working Temperature	-30°C ~ +50°C
Relative Humidity	less than 90%
Force of Pressing key	1 ~ 5N
Cooling mode	Nature cooling
Installation Dimension	
Figure size:	1400mm x 1000mm x 1990mm
Weight:	98Kg





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